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BIRD NOTES FROM ITASCA COUNTY, MINNESOTA

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Each passing year, with its opening of new country to homesteaders and tourists, makes it more and more difficult for the nature lover — the one who seeks the undisturbed wilderness — to find gratification for his longing. passing years have witnessed the deforestation of much of northern Wisconsin and Michigan, and with the disappearance of the old trees has gone the animal life both big and small. The virgin forests of white pine are practically gone, razed either by the willful hand of man, or, through his carelessness, by fire. Whereas the last generation enjoyed this virgin wilderness, the present generation must content itself with isolated and protected areas, or with an occasional giant pine that has, somehow, withstood the ravages and accidents of Time. All of which is greatly to be regretted, the more so as much of the devastation could have been prevented. Each succeeding generation will have to content itself with less and less of the wilderness as it was, until eventually a time must come when, outside of national and state preserves, carefully policed and protected, but little deserving of the title of "wilderness" will remain.

To the zoōlogist, northern Wisconsin and Michigan are still practically virgin soil, and there is much research work to be done in both states. Northern Minnesota is,

however, still a paradise practically untouched by the zoologist, and it is high time that some definite records be filed concerning the species found, and their abundance. With the constantly changing conditions which are met with in this area -- fires, road construction, and the general advance of civilization — there must of necessity follow a constantly changing condition among the wild life of the region, to conform with the physiographic and topographic changes of the country. There will be some few new additions to the fauna as a result of these changes, but far outnumbering these will be the disappearance of species which are unable or unfitted to compete or associate with man. These changes are already going on. In the county visited the elk and caribou are gone; the moose is fast going; the beaver is nearly gone, as are the raccoon, the badger and the fox; the bear is very scarce. And this is just a beginning; these animals must go, and others must inevitably follow them closely. Among the birds the pileated woodpecker and the pin-taled and spruce grouse will not long endure. It will not take many years to alter greatly the lists of birds and mammals of Itasca county.

During the summer of 1919, the writer had the opportunity of spending nearly five weeks in Itasca country, in northern Minnesota. This county lies in what may be termed the second tier of northern counties in that state, and includes within its boundaries 2,844 square miles, or 1,858,281 acres of territory, of which 128,768 acres are water. Few counties can offer such diversified surroundings. Towns, cities, great mining interests, lumbering, miles of wilderness, numberless lakes, extensive swamps, great rivers, mammals and birds in abundance, Itasca county stands unique in the writer's experience. after lake, each set in its frame of wilderness without sign of human habitation; rolling hills from the summit of which one scans a panorama of great beauty encompassing pine-wood slopes, curling rivers and turquoise lakes; cold nights with the multitude of mysterious night sounds, and

the flickering aurora overhead, it is indeed a wonderland to any lover of the great outdoors. But into this wonderful country has crept that curse of the woods—fire—and great areas of fire-scarred country are, unfortunately, not infrequent. Scarcely a summer goes by without some serious damage in this large county, and more damage will continue to accrue year after year throughout the country as a whole just so long as the people realize that no one is punished for starting forest fires. A large percent of these fires is the result either of deliberate firing, or of carelessness, and either at this stage of the game, is criminal. But in the eyes of the world, a crime against posterity is no crime, because posterity can not prosecute, and so it would seem inevitable that useless devastation must go on.

Botanically, the region is of great interest. Of the evergreens, the white pine (Pinus strobus) is coming as a good second growth in many places, together with jack pines (Pinus divaricata), spruce (Picea mariana), and balsam (Abies balsamea). Tamarack (Larix laricina) are common in certain localities, and is the dominant species in many of the swamps. Of the hardwoods, the white birch (Betula papyrifera) and the aspen (Populus tremuloides), are perhaps the dominant species, with a goodly sprinkling of balm of Gilead (Populus balsamifera candicans) and vellow birch (Betula lutea). Of the smaller plants, the sphagnum bogs, or "muskeags" as they are more commonly called, abound in pitcher plants (Sarracenia purpurea) each with its own little biota. Great areas of blueberries (Vaccinium corymbosum) are abundant, and the yield of berries during the summer of 1919 was unparalleled. In the less dense portions of the woods, the bunchberry (Cornus canadensis) gives rich color to the ground, with a profuse scattering of wintergreen (Gaultheria procumbens), while in the shade, wherever there is suitable decaying wood may be found fine growths of Indian pipes (Monotropa uniflora). To one who seeks carefully

is revealed large numbers of that dainty woods-growing orchid, the lasser rattlesnake plantain (*Peramium repens*). Of wild flowers there is no end, and the open places simply glow with the purple of the wild asters, the red of the wild phlox (or "fire-weed," as it is called) and the yellow of wild sunflowers and golden-rod.

There is a certain phase of the wild life situation of Itasca county that deserves special mention. The water fowl situation is most peculiar, and forms a problem of considerable interest. The hundreds of lakes of the vicinity, varying in size from Lake Winnibigoshish down to the many small, nameless, sphagnum-bordered water-holes, many of them choked with wild rice (Zizania palustris), all of them abounding with food for ducks, should prove a veritable paradise for breeding ducks and other water birds. Yet, in spite of the fact that thirty-three or more of the larger and more important lakes, many nameless small lakes, two important rivers and many smaller streams were visited, with the exception only of loons and a very few mallards and black ducks, not one species of water bird was seen by the writer until August 18, when a single horned grebe was located. This was followed on August 22 by the finding of seven pied-billed grebes when the writer was on his way to the station. Conditions are such that there should be countless numbers of ducks in the region, and it is not long since many species bred within the county, but of late years, probably within the last six years —there has been a great decrease both in breeding species and migrating numbers, leaving the area practically duckless during the summer. This situation is rather difficult to explain, and it seems rather improbable that the departure could be due to the hunting, which in quantity surely could not be compared with the bombardment which greets the fall migration in Wisconsin year after year, without apparent effect on the migration route. For the benefit of those who will work over the territory covered

in this paper in later years, a list of the lakes visited is appended.

The writer's stay in Itasca county was made possible through the kindness of Dr. Sydney Kuh of Chicago, who has a cabin on Lake Minnewanka. The writer was his guest from July 18 to August 22. Every facility for studying the wild life was at hand, and over a thousand miles covered by machine assured the writer of fairly comprehensive data, and made possible the visiting of much territory otherwise inaccessible. To Dr. Kuh, therefore, and to his guide, Mr. George Dwigans, the writer expresses his appreciation for the opportunity of listing the 108 species of birds which follow.

1. Horned Grebe-Colymbus auritus Linn.

A single individual was found on August 18, in one of the very small, nameless lakes. There is no breeding evidence, though it is undoubtedly a summer resident.

2. Pied-billed Grebe-Polilymbus podiceps (Linn).

Not a single individual of this species was seen until the morning the writer left for home, when seven were seen feeding in a small pond along the road. Very common on migrations, and probably a breeding species to some extent.

3. Loon—Gavia immer (Brunn.)

An abundant breeding species. Practically every body of water, containing fish—whether dignified by a name or not—harbors a pair of loons, and its family. The larger lakes frequently have several pairs, though they keep separated as a rule. Interesting gatherings were frequently seen on several lakes, when as many as eight or nine adult birds would congregate, and with much calling and splashing of wings would apparently play together for as long as half an hour. Then one by one the birds would take wing, and return to their own lakes.

4. Herring Gull-Larus argentatus Pont.

An occasional summer visitor from either Lake Superior or the region to the north. Only two birds of this species were seen, both traveling toward the lake. More common in the early spring and fall.

5. Common Tern-Sterna hirundo Linn.

On a number of occasions these birds were seen, but only about the larger lakes. One bird in juvenile plumage was seen over Balsam Lake, indicating that the species breeds in the vicinity.

6. Black Tern-Clidonias nigra surinamensis Linn.

A common breeding species about all of the larger lakes. Found throughout the county on nearly every body of water, though never in large numbers. The remnants of recently used nests were found among the rushes near the shore. Food consists largely of the common minnow of the region, *Semotilus atromaculatus*, together with small perch, and pickerel up to two inches in length.

7. American Merganser-Mergus americanus (Cass.)

Common during the migrations, and from what information came to hand, probably formerly a breeding species. None was seen.

8. Red-breasted Merganser—Mergus serrator (Linn.)

Very likely a breeding species. Several individuals were reported by Mr. Dwigans in early August, and a pair is said to have bred at the south end of Lake Minnewanka. Formally more common. This is the common "fish duck" and "saw-bill" of the county.

9. Hooded Merganser-Lophodytes cucultatus (Linn.)

None of these birds was seen, but the described presence of a fish duck with a white triangle in its head makes it clear that the species is at least a migratory one.

10. Mallard-Anas platyrhynchos Linn.

A common breeding species. Breeds throughout the county about the less frequented lakes affording shelter and food. The abundance of wild rice (*Zizania palustris*) in certain of the shallower lakes and even along the edges of the deeper lakes, affords the necessary attraction. Marble Lake, nearly overgrown with rice, was the breeding ground of a considerable number. Heard frequently about Lake Minnewanka, to which they probably came from Marble Lake.

11. Black Duck—Anas rubrines Brewster.

Seen quite frequently, and usually in company with the mallards. Breeds along with them near Marble Lake, and frequents the wild rice and rushy, swampy shores of the undisturbed lakes. Food is at present in untold abundance, and it is altogether surprising that there are so few species of ducks breeding in the county, and so few pairs of those that do breed.

12. Baldplate—Mareca americana (Gmel.)

A migrant only, fairly common during both the spring and fall migrations.

13. Blue-winged Teal—Querquedula discors (Linn.)

Common as a migrant only. May still be a breeding species in some parts of the county, but none was seen. Strangely enough, the writer could find no evidence of the presence of the greenwinged teal, in spite of the number of hunters interviewed.

14. Shoveller—Spatula clypeata (Linn.)

Found only during the migrations, and then in not very great numbers. At Ely the writer found a mounted specimen of a full plumaged male, shot in Itasca county in the early fall (sometime during September) of 1917.

15. Pintail-Dafila acuta (Linn.)

Another species which is a migrant only. It seems likely that this duck bred within the county up to about five years ago, but the writer found no sign of its presence during his stay.

16. Wood Duck—Aix sponsa (Linn.)

A migrant only, so far as data at hand indicate. It is not unlikely, however, that the bird still breeds in some of the more heavily timbered regions. A mounted specimen at Ely, of a female in good plumage, was labeled "Itasca County, July, 1916."

17. Greater Bluebill-Marila marila (Linn.)

A migrant only, more common, apparently, in the fall than in the spring.

18. Lesser Bluebill—Marila affinis (Eyt.)

Probably by far the most abundant of the migrant ducks. Straugely enough, the hunters of the region distinguish very clearly between this and the foregoing species. It is possible that the species still breeds within the county, as it did formerly, but in small numbers. Known locally as "blackheads."

19. Golden-eye-Clangula clangula americana Bonap.

A migrant only, quite common for a short period of time on both migrations, and among the last to go in the fall and the first to return in the spring.

20. Bufflehead—Charitonetta albeola (Linn.)

A migrant only, and neither very common; not found in any considerable numbers. Known locally as the "butterball."

21. Canada Goose—Branta canadensis canadensis (Linn.)

Now a migrant only. Formerly a breeding species. With the opening up of the country, and the arrival of numerous homestead ers, the goose has been driven from its old breeding grounds in this county, as it has in most parts of Wisconsin and Michigan. Bred near Marble Lake as recently as the summer of 1915.

22. American Bittern—Botaurus lentiginosus (Montag.)

Quite a common breeding species in the low, swampy regions, but only in the more open—and consequently often the more settled—regions. Seen several times near the Prairie River and Lawrence Lake. A young bittern, but recently out of the nest, was seen from the machine on August 3d, as we drove over the bridge crossing one end of Long Lake.

23. Great Blue Heron-Ardea herodias herodias Linn.

A common breeding species; in fact, really abundant. Seen about the shores of nearly all the lakes, and on many of the rivers. One bird of this species was seen on probably twenty different occasions, at almost the exact same spot, fishing along the shores of the Prairie River. Another individual used to pay early morning visits to the spring-board at the end of the pier in Lake Minnewanka, where he had good fishing for frogs and small perch.

24. Virginia Rail—Rallus virginianus Linn.

A breeding species, though not very common, where conditions are suitable. Heard quite frequently, and seldom seen. Prefers the wet regions along small creeks and swamps about lakes.

25. Sora Rail-Porzana carolina (Linn.)

Apparently somewhat more common than the preceding species. Breeds in wet, open swamps. Several individuals were seen, usually along small streams. Sometimes spoken of as the "rice bird."

26. Coot-Fulica americana Gmel.

A very abundant migrant, and possibly a breeding species, though the writer found no evidence of breeding. Two seen on August 12 at the north end of Lake Minnewanka, feeding among the wild rice and arrod-head (sagittaria sps.). Known to breed within the county within the last six years.

27. Spotted Sandpiper—Actitis macularia (Linn.)

A common summer resident, and most likely a breeding species. Frequents the shores of the lakes and rivers, and is partial to those having either sandy shores or numerous "dead-heads," on which the birds delight to "teeter." The abundance of small aquatic insects of every sort affords plenty of food for the sand-pipers, and it is surprising that this is the only species seen.

28. Killdeer—Oxyechus vociferus (Linn.)

. A single individual of this species was heard flying overhead on August 10. The type of country is such as to be unattractive to the plover, except in such places where there has been a considerable amount of clearing and plowing. In such places the bird undoubtedly nests.

29. Spruce Grouse—Canachites canadensis canace (Linn.)

Formerly rather common within the county, the spruce partridge is all but exterminated, because of both hunters and the continuous forest fires, which have nearly ruined its haunts. Stays rather closely within heavy spruce or cedar swamps, and is anything but timid.

30. Ruffed Grouse-Bonasa umbellus umbellus (Linn.)

For a time nearly extinct in the county, the ruffed grouse is

now very apparently on the increase, and if the closed season could be held for another five years, the species would be out of danger. However, the continued protection has affected the birds in such a way that they have lost all their timidity, and they sit along the roadside and watch the automobiles go by, and permit one to alight and take their pictures! As a result of this boldness, when the period of the closed season expires, there is going to be sad slaughtering among the grouse, and probably 75% of the present stock will be exterminated the first week. After which time the species will again be in a desperate plight. It is not enough to protect our game by closed seasons: we must protect them by education of the hunters as well. A continuance of the closed season is urged.

31. Sharp-tailed Grouse—Pediacetes phasianellus phasianellus

(Linn.)

Occurs, probably as a breeding species, within the county, but is practically exterminated. A mounted male of the species, taken in Itasca county, was found in Ely, labeled "September 10, 1915." Known locally as the "pin-tailed grouse."

32. Turkey Vulture—Cathartes aura septentrionalis Wied.

Unless there is a decomposing carcass in the vicinity, the vulture is rarely seen. Yet, let an animal of any considerable size die, and within twenty-four hours the vultures have found him. Several were seen, soaring high overhead, drifting here and there aimlessly in the wind, in a way which only the vulture can. There is no evidence of the species breeding within the county, though it is possible that it does.

33. Marsh Hawk—Circus hudsonius (Linn.)

A common breeding species throughout the county. Seen often circling low over the wet swamps, where it was found to feed on snakes (Thamnophis sirtalis) and frogs (Rana pipiens).

34. Sharp-shinned Hawk—Accipiter velox (Wils.)

But two birds of this species were seen. One was in flight, the other perched on a dead tree, with the body of a white-throated sparrow in its claws.

35. Cooper's Hawk-Accipiter cooperi (Bonap.)

A single Cooper's hawk was seen, flying rapidly overhead, with the body of a small song bird of unknown identity, in its claws.

36. Red-tailed Hawk—Buteo borealis borealis (Gmel.)

Both heard and seen frequently. On July 30, a full plumaged bird was seen near Long Lake, which gave the party a fine view of its chestnut brown tail. The bird showed no timidity, and passed within fifty feet.

37. Red-shouldered Hawk-Buteo lineatus lineatus (Gmel.)

Somewhat more abundant than the preceding species, the redshouldered hawk was numerous throughout the county. Both of these species are known locally as "chicken hawks," and are usually not differentiated. There is no breeding evidence for either species.

38. Bald Eagle-Haliwetus leucocephalus leucocephalus (Linn.)

A single specimen with the white head was found at Ely, taken in Itasca county on August 14, 1915. Eagles are not uncommon within the county, but it was the writer's luck not to have located the species. Whether or not the Golden eagle occurs is a question: the general opinion among the hunters seems to be that it does, but as there is no proof at hand, and as there is considerable room for confusion between the immature bald eagle and the golden, the latter is not listed.

39. Sparrow Hawk-Falco sparverius sparverius Linn.

About the region in which the writer lived, the sparrow hawk was never seen. However, on several trips which took him into more open country, this species was found to be abundant. In suitable locations—burned over lands, or clearings near homesteads—the sparrow hawk was the feature of the landscape, perched upon conspicuous dead limbs. Undoubtedly a breeding species.

40. Osprey—Pandion haliaëtus carolinensis (Gmel.)

A common breeding species. Three nests were found, all containing young. One near Cedar Lake, one near King Lake and one near Long Lake. The adult birds were seen constantly going to and from the nests, and early in August the young were seen sitting around the edge of the nest. By the middle of August the young were out, and were flying. Found looking for fish over nearly all the lakes at one time or another.

41. Barred Owl-Strix varia varia Barton.

Not seen, but heard on the nights of July 24, 29, 31 and often during August. No doubt a breeding species.

42. Great Gray Owl—Scotiantex nebulosa nebulosa (Forst.)

A winter visitor only, and never common. A mounted specimen at Ely bears the inscription: "Itasca County, February 11, 1914."

43. Screech Owl-Otus asio asio (Linn.)

Heard on the night of August 1; this is the only evidence the writer has of the species. However, the hunters describe "a small owl with horns," which must be this species. No doubt breeds within the county.

44. Great Horned Owl-Bubo virginianus virginianus (Gmel.)

The commonest of the owls. Seen several times in broad daylight, both at rest and on the wing. Frequents the heavier timber, where it nests. Two young, recently out of the nest, were seen. Heard only occasionally.

45. Snowy Owl-Nyctea nyctca (Linn.)

A not uncommon winter resident, which frequently causes trouble by robbing rabbit snares and traps.

46. Yellow-billed Cuckoo-Coccyzus americanus americanus

(Linn.)

A haunter of the hard-wood thickets, the cuckoo was seen only on two occasions, though its call was frequently heard during rambles through the woods. A nest, probably of this species (certainly a cuckoo's nest) was found, bearing signs of recent occupancy.

47. Kingfisher—Ceryl alcyon (Linn.)

One of the most abundant birds of the county. Seen everywhere—on every lake and every river and stream—always noisy, always fishing. The nesting holes of the kingfisher were found in nearly every sandy hill that afforded a suitable surface. With the birds so abundant, it seems likely that they take considerable toll of the fish, but there is no sign of a scarcity of fish because of its ravages. (Wisconsin take note!)

48. Hairy Woodpecker-Dryobates villosus villosus (Linn.)

Quite a common resident and breeding species. Seems to prefer the hard-woods to the evergreens, both for breeding purposes and for feeding.

49. Downy Woodpecker-Dryobates pubescens medianus (Swains.)

Somewhat more common than the hairy, the downy seems to be nearly as much at home among the evergreens as among the hard-woods, though the latter are chosen for the breeding locality, as a rule. Young only recently out of the nest were seen July 22. 50. Yellow-bellied Sapsucker—Sphyrapicus varius varius (Linn.)

The most common of the woodpeckers, by a considerable margin. The hard-woods—particularly the birches and maples—show abundant signs of the labors of this injurious species. Innumerable young were to be seen throughout the latter half of July.

 Northern Pileated Woodpecker—Phlæotomus pileatus abieticola (Bangs.)

This large woodpecker was surprisingly in evidence throughout the writer's stay in the woods. Seen many times, scarcely a day passed without the drumming of the "cock-o'-the-woods" being heard. Shows a preference for the large stands of evergreens. The nesting holes were frequently found, and were unmistakable because of their size. These usually occurred in evergreens—and usually in living trees—at a height varying between five to twenty-five feet.

52. Red-headed Woodpecker—Melanerpes erythrocephalus (Linn.)

A common summer resident at least, and a breeding species. Seen quite frequently in the burned-over areas where there is a good young stand of hard-woods. Seldom seen in the deep evergreen woods. Young birds were seen on two occasions, the first on July 19.

53. Northern Flicker—Colaptes auratus luteus Bangs.

Like the red-headed woodpecker, the flicker prefers the more open places to the deep woods, where it is practically never found. Young second growth hard-woods form the most attractive haunts for the species. A breeding species, and abundant; known locally as the "yellow-hammer."

54. Whippoorwill—Antrostomus vociferus vociferus (Wilson).

Although not seen, the whippoorwill occurs within the county, and its call is not infrequently heard. The finding of the bird would be a lucky accident, as it must be considered rare.

55. Nighthawk—Chordeiles virginianus virginianus (Gmel.)

Very abundant, and a breeding species. Active at nearly all hours of the day, they reach the height of their activity just at dusk, when they perform their aërial stunts. With jerky flight, they rise in a spiral course to a height of about two hundred feet, when they dive toward the earth in a sharp diagonal, bringing themselves to a halt just over the ground with a peculiar vibrating sound. This is caused by the vibration of the wings, as is easily seen at close range.

56. Chimney Swift—Chatura pelagica (Linn.)

In spite of the few places suitable for breeding, the chimney swift is fairly common, finding breeding sites in the chimney of all the homesteads. The pair which nested in the chimney of our cabin got the young out of the nest August 2. About the towns the birds are considerably more in evidence.

57. Ruby-throated Hummingbird—Archilochus colubris (Linn.)

Seen constantly in the flower garden near the cabin, where the birds frequented the tiger lilies and red dahlias. A lichencovered nest belonging to the species was found on the ground one day after a bad windstorm. It was on a basswood (*Tilia americana*) limb, and was typical in every way.

58. Kingbird—Tyrannus tyrannus (Linn.)

By all odds the most abundant bird of the region, and the species which may be said to be characteristic of the county. King-birds are everywhere, except in the deep woods. They sit along

chasing crows, hawks and owls whenever they appear. The burnedover land is their favorite haunt, and here they sit perched on the point of a needle-like shaft, awaiting the appearance of insects. Breeds throughout the county, most often near the roads.

59. Phœbe—Sayornis phæbe (Lath.)

Both seen and heard frequently. A common breeding species, which is found most commonly in the hard-woods, where their mournful note is quite characteristic. Several old nests were found, including one evidently deserted and containing three eggs, which was found on a shelf near a broken window in an abandoned homestead.

60. Wood Pewee-Myiochanes virens (Linn.)

A common summer resident and breeding species. A pair had their nest under the eaves of the sleeping shack, and used to sit side by side on top of an upturned canoe near by, and watch us dress each morning.

61. Least Flycatcher—Empidonas minimus (Baird).

Seen and heard frequently near camp. During the third week of July one of these birds was seen carrying food, though neither the nest nor the young were ever discovered. Seem also to prefer hard-woods.

62. Blue Jay—Cyanocitta cristata cristata (Linn.)

A common resident, more abundant in the summer, however, than in the winter. There is probably a partial migration of the species southward. Breeds in hard-wood or evergreen woods alike, and nests were found in both. Very quiet during the breeding season; as soon as the young leave the nest they become loquacious, and grow more and more noisy as the season advances.

63. Canada Jay-Perisoreus canadensis canadensis (Linn.)

A single individual was seen near the southern border of the county on August 20. It is possible that this may be a breeding species, but it is far more common as a winter resident. During the winter the birds appear in considerable numbers, and live up to their reputation of daring and fearlessness by making themselves perfectly at home about the camp. Commonly known as the "Lumber Jack" and "Moose bird."

64. Crow-Corvus brachyrhynchos brachyrhynchos Brehm.

Common in the more open places, where they congregate in considerable numbers. Rather wild and difficult to approach, and always on the lookout for intruders. A breeding species.

65. Raven—Corvus corax principalis Ridg.

Apparently a winter resident only, as no evidence of their presence was found, though the writer fully expected to find them

here as he did in northern Michigan.¹ Common during the winter months.

66. Cowbird—Molothrus ater ater (Bodd.)

A common summer resident and breeding species. Seen most frequently about homestead clearings and in the vicinity of towns. A female white-throated sparrow was seen feeding a young cowbird.

67. Red-winged Blackbird—Agelains phaniceus phaniceus (Linn.)

Common wherever there are rushes and suitable conditions. Seen around nearly every river and lake. Young just out of the nest were seen on July 21, and another brood of young but recently out was seen as late as August 19, in spite of the fact that the species was already beginning to flock. Many old nests were found.

68. Meadowlark—Sturnella magna magna (Linn.)

As one might expect from the type of country, the meadowlark is seldom seen except in the cleared fields about homesteads and in the near vicinity of towns. Here, however, the species is reasonably common, and often heard. A breeding species.

69. Baltimore Oriole—Icterus galbula (Linn.)

Another bird that seeks the vicinity of dwellings because of the clearings. Seen but once in the hard-wood regions, but often seen and heard about clearings. Several old nests were found, mostly in elm and white birch.

70. Rusty Blackbird—Euphagus carolinus (Müll.)

About the commonest of the blackbird family, the rusty blackbird was seen almost daily. Usually found along the roads, and in the vicinity of clearing and burn-over areas. A common breeding species, which begins to flock shortly after the young are out of the nest. Large flocks were seen as early as August 8, but the number and size of the flocks steadily increased as the weeks wore on. Does no little damage, together with the next species, in the grain fields.

71. Bronzed Grackle—Quiscalus quiscula aneus (Ridgw.)

A common breeding species and summer resident. Begins to gather in quite large flocks early in August. Nests were seen in spruce and Norway pines only.

72. Evening Grosbeak—Hesperiphona vespertina vespertina

(Coop.)

A breeding species. Seen several times in the immediate

¹Cahn, Alvin R., Notes on the Vertebrate Fauna of Houghton and Iron Counties, Michigan. Trans. Wis. Acad. Sci., Arts and Letters, Vol. XIX, Part 1, p. 496.

vicinity of the cabin on Lake Minnewanka, where an entire family—parents and two young—were constantly attracted to a cherry tree (*Prunus pennsylvanica*). Here they were easily watched, and proved to be not the least timid. Their feeding habits deserve note: the ripe cherries were picked and the flesh removed from the seed by one bite and a little squeezing, and discarded. The seed was then cracked nearly in half—considerable pressure must have been required, for the "pop" could be heard a distance of one hundred feet—and the heart of the seed removed and eaten, the outer shell being discarded. The birds visited the same tree day after day, and had the ground fairly littered with the flesh and pit-hulls of the fruit.

73. Purple Finch—Carpodacus purpureus purpureus (Gmel.)

Seen only once, on August 5, when three individuals were located along the road. Possibly a breeding species within the county, but doubtful. More common as a migrant, particularly in the fall and early winter.

74. Goldfinch—Astragalinus tristis tristis (Linn.)

Common as a summer resident and breeding species. Begins nesting during the third week of July, when the birds were seen gathering nesting material. Young recently out of the nest were seen on August 16.

75. English Sparrow—Passer domesticus (Linn.)

Inevitable. Found, however, only in the vicinity of homesteads and town's, and never seen in the woods.

76. Vesper Sparrow—Powcetes gramineus gramineus (Gmel.)

A very close second to the kingbird for the position of dominant bird of the clearings. Seen in great numbers along every roadside, where there is a clearing. A breeding species, with young out of the nest at least during the third week of July.

77. White-throated Sparrow—Zonotrichia albicollis (Gmel.)

This sparrow is, together with the above species, a close secand to the kingbird for the position of dominant species in the burned-over area, and is the dominant bird of the underbrush. Seen and heard constantly in the above situations. A female and two young were seen on July 22.

78. Tree Sparrow—Spizella monticola monticola (Gmel.)

A single specimen of this species was seen, a male. The bird was sitting along the roadside, in full song, on July 22. Very likely more common than data indicate, and possibly a breeding species.

79. Chipping Sparrow—Spizella passerina passerina (Bech.)

A rather uncommon summer resident, and probably a breeding species, though there is no confirmatory evidence. Several were seen during the second week in August, and still more during the early part of the third week, while none was seen during July. Heard in song only once.

80. Junco-Junco hyemalis hyemalis (Linn.)

A common summer resident, and breeding species. Found usually near the roadside, or in the young bushes which are grow-over newly burned territory. On July 24, a junco was seen carrying food, but the nest could not be located in the brief time available for the search. Song not heard, though the lisping chirp was often in evidence.

81. Song Sparrow-Melospiza melodia melodia (Gmel.)

Until the writer got into northern Minnesota, he had seen very few song sparrows in 1919, the species being for some unknown reason very scarce in Illinois and southern Wisconsin during the spring and early summer. However, the numbers found in Itasca county were decidedly reassuring, as the song sparrow proved to be one of the most commen sparrow in the region. Found both in the woods and about the homesteads and towns. A common breeding species.

82. Chewink—Pipilo erythropthalmus erythropthalmus (Linn.)

Seen on a number of occasions, and once (on July 24) carrying food. Only a single male was seen, but probably a dozen or more females showed that the species is fairly common. Their secretive habits make it difficult to form a good idea of the abundance of the species.

83. Rose-breasted Grosbeak—Zamelodia ludoviciana (Linn.)

A pair of these birds visited the cherry tree one day at the same time that the evening grosbeaks were there, and while they too, discarded the flesh of the fruit, they did not crack the pit, but swallowed it entire. A breeding species, as proven by the finding of the two young birds on August 2.

84. Indigo Bunting-Passerina cyanca (Linn).

Seen but once, the indigo bird undoubtedly is more common than data indicate. The bird was heard in full song several times between August 8 and 12, near the cabin, and an old nest—presumably of this species—was found in a hazel bush within two feet of the ground.

85. Scarlet Tanager—Piranga erythromelas Vieill.

A not uncommon summer resident and breeding species. A pair and three young were seen on July 31, and these, with the

exception of a single full plumaged male, are the only records the writer has for the species.

86. Purple Martin-Progne subis subis (Linn.)

A common summer resident and breeding species. Every homestead has its martin house, and every house its full quota. Seen about nearly every house, and quite commonly in the towns. The birds began to flock the end of July, and departed during the night of August 10.

87. Barn Swallow-Hirundo crythrogastra Bodd.

Common about the towns and homesteads, where they nest whenever a suitable spot is found. Young out of the nest were seen on the wing on July 18.

88. Bank Swallow-Riparia riparia (Linn.)

Common wherever there is a place suitable for nesting. Colonies of fifty or more nests were seen in sand banks, with an occasional kingfisher nest mixed in with the swallow nests. These nesting places are usually along the roadsides, as the cuts made for the roads afford the most spacious nesting sites available. Young still in the nest as late as August 11 indicate a possible second brood.

89. Rough-winged Swallow-Stelgidopteryx serripennis (Aud.)

Not nearly as common as the preceding species, but found nesting along with them occasionally. Owing to the small amount of space available to bank-nesting birds, the possible places are generally pretty well crowded.

90. Cedar Waxwing-Bombycilla cedrorum Vieill.

Common during the summer, and a breeding species. Seen gathering nesting material in the swamps as early as July 22. Feeds commonly on the wild cherry (*Prunus pennsylvanica*), eating either the entire fruit, or sometimes only the flesh.

91. Red-eyed Vireo-Vireosylva olivacea (Linn.)

Heard in song during the entire stay in the woods, though but seldom seen. A female was seen feeding two young on August 17, indicating a second brood. The food in this case was the wild black cherry (*Prunus serotina*), and the female was having difficulties in poking entire cherries down the small throats. Several vireo nests were seen, all showing considerable use of birch bark in construction.

92. Black and White Warbler-Mniotilta varia (Linn.)

A spring and fall migrant only, apparently. Several birds of this species were seen on August 20, which date was the beginning of the fall warbler migration. Was found on the trunks of both hard-woods and evergreens, but seemed to prefer the former.

93. Nashville Warbler-Vermivora rubricapilla rubricapilla

(Wilson)

Three were seen on August 20 and another on August 21. A migrant only.

94. Yellow Warbler—Dendroica æstiva æstiva (Gmel.)

Surprisingly few warblers of any species were seen, and the writer can offer no evidence of a single species breeding. The yellow warbler was not seen until August 20, when the fall migration began, and on that date only two were found.

95. Black-throated Green Warbler-Dendroica virens (Gmel.)

On August 21 the woods seemed fairly alive with birds of this species, but only for about two hours—between 10 a.m. and noon. Probably twenty were seen in that time, and many others heard. Later in the evening several more were heard. The writer regrets that he had to leave the woods just as the fall migration was getting well under way.

96. Maryland Yellow-throat—Geothlypis trichas trichas (Linn.)

Heard on August 8, and several seen after that. It is very likely that this warbler breeds in the county, but the writer did not prove it. Prefers the wet swamps where there is a considerable amount of young underbrush.

97. Catbird—Dumetella carolinensis (Linn.)

The writer was rather surprised to find so few birds of this species. Although seen and heard a number of times, the catbird was not one of the common species found. Young a few days out of the nest, but no longer attended by the parents, were seen on July 25.

98. Brown Thrasher—Toxostoma rufum (Linn.)

Quite a common breeding species, and considerably more in evidence than the preceding species. Found frequently in hardwood thickets, and but rarely in evergreen tangles. Perfectly silent, the brown thrasher proved shy and timid, even when one intruded around the nest.

99. House Wren-Troglodytes aëdon aëdon Vieill.

Like the purple martin, the house wren is to be found in the vicinity of every homestead, and about the gardens and yards in the towns. Seen occasionally in the woods, the bird is shy and disappears from view like a flash. The species was in song during July, but was seldom heard after August 5. Breeds commonly in any available spot about the buildings.

100. Long-billed Marsh Wren—Telmatodytes palustris palustris (Wilson).

A breeding species in the cat-tail swamps around the lakes and streams. Several old nests were found about Cedar Lake and

Rice Lake, and the species was both seen and heard constantly near the cabin on Lake Minnewanka. Very shy and secretive.

101. Brown Creeper-Certhia familiaris americana Bonap.

Little data is at hand concerning this unobtrusive little fellow. Although seen four times during July, there is no breeding evidence at hand. Shows a decided preference for hard-woods.

102. White-breasted Nuthatch-Sitta carolinensis carolinensis

Lath.

A common resident and breeding species, though there seems to be somewhat of a fall migration of the species. More common, certainly, in the summer than in the winter. Heard often in both hard-wood and evergreen woods.

103. Red-breasted Nuthatch-Sitta canadensis Linn.

Nearly as common as the preceding species, the little redbreasted nuthatch was often heard about camp, and seemed to show a little preference for evergreen woods. There is no evidence concerning breeding.

104. Chickadee—Penthestes atricapillus atricapillus (Linn.)

Common during the summer and winter, and is a breeding species. A pair was seen with four youngsters just out of the nest on August 16. Heard in song during the entire stay in the woods, and the "dee-dee-dee" notes were the ones most often heard. 105. Ruby-crowned Kinglet—Regulus calendula calendula (Linn.)

A single male of this species was the only evidence of the presence of this little bird. On August 7 a male lit on the fence around the flower garden not ten feet from the writer, flashed his ruby crown several times, inspected him very carefully, and flew

away.

106. Hermit Thrush-Hylocichla guttata pallasi (Cab.)

Heard in song twice, on July 18 and 30. Seen several times, but it is evident that the species is not very common within the areas visited. Stays strictly within the hard-wood thickets, and probably breeds there.

107. Robin—Planesticus migratorius migratorius (Linn.)

Common throughout the county. Seen in the burned-over areas in considerable numbers. A female was seen feeding her young on August 3. One gets quite a different conception of our everyday birds when met with miles away from any human habitation!

108. Bluebird—Sialia sialis sialis (Linn.)

Found, like the robin, but not as commonly, in the burnedover areas, where it nests in old woodpecker holes, usually in a charred needle-like pine shaft. The following are the more important bodies of waters visited in Itasca county and immediate vicinity:

LAKES

1.	Anderson	18.	Mink
2.	Ball Club	19.	Minnewanka
3	Balsam	20.	Pike
4.	Bass	21.	Pokagama
5.	Beaver	22.	Rice
6.	Big Rat	23.	Silver
7.	Brush Shanty	24.	Spring
8.	Burnside	25.	Swan
9.	Cass	26.	Trout
1 0.	Cedar	27.	Vermillion
11.	Crystal	28.	Virginia
12.	Hill	29.	Wasson
13.	King	30.	Wheel-scraper
14.	Lawrence	31.	White Iron
15.	Little Rat	32.	White Swan
16.	Long	33.	Winnibigoshish
17.	Marble		

RIVERS

3. Mississippi

2. Prairie 4. St. Louis Zoölogical Laboratory,
Texas Agricultural and Mechanical College,
College Station, Texas.
October 20, 1919.

1. Big Fork